This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for reducing bus traversal in a media server comprising a host processor, ~~a~~ at least one network interface, and a storage subsystem comprising one or more storage devices, the host processor and the at least one network interface being connected to a first input-output bus, the storage subsystem being connected to a second input-output bus, the first and second input-output buses being connected via a controller, the method comprising:

~~providing a hot-swappable adaptable cache inside said media server, said adaptable cache hot-swappably connected to the first input-output bus, said adaptable cache comprising a data interface, core logic configured to dynamically alter its operating characteristics by modification of a caching rule to account for asset request frequency without disconnecting said adaptable cache from the media server, and electronic storage media;~~

receiving a request for a media asset via a network, said request being received by ~~the~~ a network interface;

receiving the request at ~~the~~ an adaptable cache at least partially inside said media server, said adaptable cache hot-swappably connected to the first input-output bus, said adaptable cache comprising a data interface, core logic configured to dynamically alter its operating characteristics by modification of a caching rule to account for asset request frequency without disconnecting said adaptable cache from the media server, and electronic storage media;

processing the request by the adaptable cache, wherein if the requested media asset is found on the electronic storage media, the media asset is returned to the user via the first bus ~~and not the second bus~~, and wherein if the requested media asset is not found on the electronic storage media, the media asset is accessed from the storage subsystem and returned to the user via the second bus and first bus, ~~and;~~ wherein the adaptable cache:

monitors requests for media assets;

determines whether select media assets should be cached;

transfers said select media assets from said one or more storage devices to the electronic storage media; and,

notifies at least one requesting application that the adaptable cache can accept future requests for said select media assets.

~~wherein the adaptable cache monitors requests for media assets, determines that select media assets should be cached, transfers said select media assets from one or more storage devices to the electronic storage media, and notifies a requesting application that the adaptable cache can accept future requests for said select media assets.~~

2. (Original) The method of claim 1, wherein the request is received at the adaptable cache via the host processor.

3-7. (Canceled)

8. (Currently Amended) The method of claim 1, wherein ~~the adaptable cache monitors requests for media assets and~~ if it is determined that the media should be cached, the adaptable cache notifies the storage subsystem to disregard requests to deliver the media.

9. (Original) The method of claim 1, wherein if the requested media asset is not found on the electronic storage media, the adaptable cache stores the requested media asset on the electronic storage media.

10. (Original) The method of claim 1, wherein the adaptable cache integrates into the media server via an expansion card slot.

11. (Currently Amended) The method of claim 1, wherein the adaptable cache integrates with native communications ~~busses~~ buses and protocols ~~existing on~~ used in the media server.

12. (Currently Amended) The method of claim 1, wherein the adaptable cache utilizes the ~~busses~~ buses and protocols ~~existing on~~ used in the media server.

13. (Currently Amended) A method for improving transactional performance in a media server comprising a host processor, ~~a~~ at least one network interface, and a storage subsystem comprising one or more storage devices, the host processor and the at least one network interface being connected to a first input-output bus, the storage subsystem being

connected to a second input-output bus, the first and second input-output buses being connected via a controller, the method comprising:

~~providing a hot-swappable adaptable cache inside said media server, said adaptable cache hot-swappably connected to the second input-output bus, said adaptable cache comprising a data interface, a core logic, and electronic storage media, and enabled to:~~

~~dynamically alter its operating characteristics by modification of a caching rule to account for asset request frequency without disconnecting said adaptable cache from the media server;~~

~~determine whether to retrieve and store data from the storage subsystem based on the algorithms and/or heuristics;~~

~~alter the storage size of the electronic storage media without disrupting the operation of the media server; and~~

~~retrieve data from the storage subsystem using its own data interface;~~

receiving a request for a media asset ~~via a network, said request being received by~~ at ~~the~~ a network interface;

receiving the request at ~~the~~ an adaptable cache at least partially inside said media server, said adaptable cache hot-swappably connected to the second input-output bus, said adaptable cache comprising a data interface, a core logic, and electronic storage media, and configured to:

dynamically alter its operating characteristics by modification of a caching rule to account for asset request frequency without disconnecting said adaptable cache from the media server;

determine whether to retrieve and store data from the storage subsystem based on the algorithms and/or heuristics;

alter the storage size of the electronic storage media without disrupting the operation of the media server; and

retrieve data from the storage subsystem using its own data interface;

processing the request by the adaptable cache, wherein if the requested media asset is found on the electronic storage media, the media asset is returned to the user without accessing the one or more storage devices on the storage subsystem, and wherein if the requested media asset is not found on the electronic storage media, the media asset is

accessed from one or more storage devices on the storage subsystem and returned to the user, ~~; and~~ wherein the adaptable cache:

monitors requests for media assets;

determines whether select media assets should be cached;

transfers said select media assets from said one or more storage devices to the electronic storage media; and,

notifies, at least one requesting application that the adaptable cache can accept future requests for said select media assets.

~~wherein the adaptable cache monitors requests for media assets, determines that select media assets should be cached, transfers said select media assets from one or more storage devices to the electronic storage media, and notifies a requesting application that the adaptable cache can accept future requests for said select media assets.~~

14. (Original) The method of claim 13, wherein the request is received at the adaptable cache via the second input-output bus.

15. (Original) The method of claim 13, wherein the adaptable cache integrates into the media server via an expansion card slot.

16. (Original) The method of claim 13, wherein if the requested media asset is not found on the electronic storage media, the adaptable cache stores the requested media asset on the electronic storage media.

17-18. (Canceled)

19. (Currently Amended) The method of claim 13, wherein ~~the adaptable cache monitors requests for media assets and~~ if it is determined that the media should be cached, the adaptable cache notifies the storage subsystem to disregard requests to deliver the media.

20. (Currently Amended) The method of claim 13, wherein the adaptable cache integrates with native communications ~~busses~~ buses and protocols ~~existing on~~ used in the media server.

21. (Currently Amended) The method of claim 13, wherein the adaptable cache utilizes the ~~busses~~ buses and protocols ~~existing on~~ used in the media server.

22. (Currently Amended) A system for facilitating delivery of media resources, comprising:

a media server comprising a host processor, ~~a~~ at least one network interface, and a storage subsystem comprising one or more storage devices, the host processor and the at least one network interface being connected to a first input-output bus, the storage subsystem being connected to a second input-output bus, the first and second input-output buses being connected via a controller;

~~a hot swappable~~ an adaptable cache at least partially inside said media server, said adaptable cache hot-swappably connected to an input-output bus of the media server, and comprising a data interface, core logic configured to dynamically alter its operating characteristics by modification of a caching rule to account for asset request frequency without disconnecting said adaptable cache from the media server, and electronic storage media, the adaptable cache being adapted to store data on the electronic storage media, and further being adapted to receive and process requests for media assets, wherein if the requested media asset is found on the electronic storage media, the media asset is returned ~~to a requestor~~ via one or more I/O buses, and wherein if the requested media asset is not found on the electronic storage media, the media asset is accessed from the storage subsystem and returned ~~to the requestor~~, and wherein said adaptable cache is further adapted to monitor requests for media assets, to determine, ~~that~~ based at least in part on said cache operating characteristics, whether select media assets should be cached, to transfer said select media assets from one or more storage devices to the electronic storage media, and to notify at least a requesting application that the adaptable cache can accept future requests for said select media assets.

23. (Currently Amended) A method for simulating passive monitoring of a bus by ~~a first component in~~ an adaptable cache means hot-swappably connected to said bus and positioned at least partially inside a media server, comprising:

identifying a ~~second~~ first component that transmits messages to a ~~third~~ second component, said messages desired to be monitored by ~~the first component, wherein said first~~

~~component comprises a hot-swappable~~ an adaptable cache means ~~inside a media server, said adaptable cache hot-swappably connected to a bus inside said media server, said adaptable cache~~ comprising ~~a~~ data interface, a core logic configured to dynamically alter its operating characteristics by modification of a caching rule to account for asset request frequency without disconnecting said adaptable cache from the media server, and electronic storage media;

adapting the ~~second~~ first component to address the message to both the ~~third~~ second component and the ~~first component; and~~ adaptable cache means, wherein the adaptable cache means:

monitors requests for media assets;

determines whether select media assets should be cached;

transfers said select media assets from one or more storage devices to the electronic storage media; and,

notifies at least one requesting application that the adaptable cache can accept future requests for said select media assets.

~~wherein the adaptable cache monitors requests for media assets, determines that select media assets should be cached, transfers said select media assets from one or more storage devices to the electronic storage media, and notifies a requesting application that the adaptable cache can accept future requests for said select media assets.~~

24. (New) The method of claim 1, wherein the adaptable cache integrates with a network interface.

25. (New) The method of claim 1, wherein the adaptable cache integrates with said controller.

26. (New) The system of claim 22, wherein the adaptable cache is hot-swappably connected to said first input-output bus.

27. (New) The system of claim 26, wherein the adaptable cache integrates with a network interface.

28. (New) The system of claim 26, wherein the adaptable cache integrates with said controller.

29. (New) The system of claim 22, wherein the adaptable cache is hot-swappably connected to said second input-output bus.

30. (New) An adaptable cache for improving performance of a media server, comprising:

a data interface;

an electronic storage medium;

a core logic comprising a programmable logic device, bootstrapping instructions, an operational instruction set, an interface to said electronic storage medium, and an interface to said data interface;

said operational instruction set defining operations for proactively caching media assets, and notifying potential calling applications of media assets stored in said adaptable cache.

31. (New) The adaptable cache of claim 30, wherein said programmable logic device is a Field Programmable Gate Arrays (FPGAs).

32. (New) The adaptable cache of claim 30, wherein said programmable logic device is programmed to comprise an Input/Output (I/O) bus controller for controlling communications between the adaptable cache and an I/O bus to which the adaptable cache connects.

33. (New) The adaptable cache of claim 30, further comprising an Input/Output (I/O) bus controller for controlling communications between the adaptable cache and an I/O bus, wherein said I/O bus controller is integrated with said data interface.

34. (New) The adaptable cache of claim 30, wherein said programmable logic device is programmed to provide interfaces with at least one second PLD within said adaptable cache, and with said electronic storage medium.

35. (New) The adaptable cache of claim 30, wherein said adaptable cache conforms to the form factor of a Peripheral Component Interconnect (PCI) card.

36. (New) The adaptable cache of claim 35, wherein said adaptable cache conforms to PCI hot-swap specifications.

37. (New) The adaptable cache of claim 30, said operational instruction set defining operations for directing a media server storage system not to respond to a request for an asset when said asset is present in the electronic storage medium.

38. (New) The adaptable cache of claim 30, said operational instruction set defining operations for maintaining parameters comprising a number of times a particular asset has been requested within a specified amount of time and available capacity within said adaptable cache.

39. (New) The adaptable cache of claim 30, said operational instruction set defining operations for passive monitoring of a media server Input/Output (I/O) bus.

40. (New) The adaptable cache of claim 30, said operational instruction set defining operations for interval caching, wherein a sorted list of pairs of overlapping requests for the same asset is maintained that identifies pars of requests with the shortest intervals between their start times.

41. (New) A media server means for delivering requested media assets to requesting clients, comprising:

at least one network interface means for receiving media asset requests on behalf of said media server, said media asset requests being delivered via a network, and for returning requested media assets to a requesting client via said network;

a storage subsystem means for storing a plurality of media assets;

a host processor means for processing said requests for media assets, said host processor means coupled to said network interface means via a first Input/Output (I/O) bus, wherein said host processor means is configured to retrieve requested media assets from said storage subsystem means and deliver said requested media assets to said network interface means;

a controller means for connecting said first I/O bus to a second I/O bus, said second I/O bus being coupled to said storage subsystem means; and

an adaptable cache means for detecting media asset requests, and for proactively caching media assets and notifying potential calling applications of media assets stored in said adaptable cache.

42. (New) The media server means of claim 41, wherein said adaptable cache means is coupled to said first I/O bus.

43. (New) The media server means of claim 42, wherein said adaptable cache means is integrated with said network interface means.

44. (New) The media server means of claim 42, wherein the adaptable cache means is integrated with said controller means.

45. (New) The media server means of claim 42, wherein the adaptable cache means is coupled to said second I/O bus.

46. (New) The media server means of claim 41, said adaptable cache means comprising means for directing said storage subsystem means not to respond to a request for an asset when said asset is present in the adaptable cache means.

47. (New) The media server means of claim 41, said adaptable cache means comprising means for maintaining parameters comprising a number of times a particular asset has been requested within a specified amount of time and available capacity within said adaptable cache means.

48. (New) The media server means of claim 41, said adaptable cache means comprising means for interval caching, wherein a sorted list of pairs of overlapping requests for the same asset is maintained that identifies pars of requests with the shortest intervals between their start times.